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**TRANSMITTAL
FORM**

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Total Number of Pages in This Submission

13

Application Number

10/713,600

Filing Date

November 13, 2003

First Named Inventor

Reinhold G. Grellmann

Art Unit

2113

Examiner Name

Attorney Docket Number

US009221-A

ENCLOSURES (Check all that apply)

Fee Transmittal Form

☐ Fee Attached

Amendment/Reply

☐ After Final☐ Affidavits/declaration(s)

Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/
Incomplete Application☐ Reply to Missing Parts
under 37 CFR 1.52 or 1.53

Drawing(s)



Licensing-related Papers



Petition

Petition to Convert to a
Provisional Application

Power of Attorney, Revocation



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After Allowance Communication to TC

Appeal Communication to Board
of Appeals and InterferencesAppeal Communication to TC
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify
below):

Receipt Confirmation Postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Signature

W Brinton Yorks, Jr.

Printed name

W. Brinton Yorks, Jr.

Date

4/25/05

Reg. No.

28,923

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25 April 2005

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APPEAL
Serial No.: 10/713,600
Docket# US009221-A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application of

Inventors : Reinhold G. Grellmann et al.
Application No. : 10/713,600
Filed : November 13, 2003
**For : REMOTE ULTRASOUND
SYSTEM DIAGNOSTICS**

APPEAL BRIEF

On Appeal from Group Art Unit 2113

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April 25, 2005

I. REAL PARTY IN INTEREST

The real party in interest is Koninklijke Philips Electronics N.V., Eindhoven, The Netherlands, parent company of the assignee of the present application, ATL Ultrasound, Inc.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-7 are pending in the application. Claims 8-37 were canceled at the time of filing of this continuation application. Claims 1-6 stand rejected and Claim 7 is objected to. The claims being appealed are Claims 1-7.

IV. STATUS OF AMENDMENTS

No amendments were submitted in response to the Final Rejection mailed January 26, 2005. This application is a continuation of its parent application, serial number 09/534,143, filed March 23, 2000.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The subject matter of the claimed invention is a distributed diagnostics network which is used to diagnose the functionality of an ultrasound system, an example of which is shown in Figs. 2, 2a, 2b, 2c, and 2d and described on pages 4, line 10 through page 6, line 15 of the present application. A plurality of diagnostics computers (110) are provided for diagnosing the functionality of an ultrasound system

(100). The diagnostics computers (110) contain ultrasound system functionality diagnostics software (page 4, lines 12-22) and are operated by servicepersons to download ultrasound system functionality diagnostic information from ultrasound systems (100) (page 6, lines 31-35; Figs. 2a-2c). There is a central diagnostics location (120) with which the diagnostics computers periodically communicate to transfer the ultrasound system diagnostics information (page 4, line 29 through page 5, line 1; Fig. 2d). The central diagnostics location (120) is a repository for ultrasound system repair, maintenance, or quality improvement diagnostic information obtained by the diagnostic computers from a plurality of ultrasound systems (page 1, lines 26-31; page 5 lines 1-5; page 16, lines 15-29).

An embodiment of the present invention enables many ultrasound systems at many geographically diverse hospitals and clinics to be serviced, maintained, and upgraded by servicepersons in the field equipped with portable diagnostics computers. The capability of the portable computers is continually improved by receiving support and new maintenance and repair methods and software from a central location. The central location receives ultrasound system information downloaded from the portable diagnostics computers concerning ultrasound systems which have been serviced. The central location can analyze this information and develop new maintenance and service information or programs for the installed base of ultrasound systems, even developing new ones in advance of the appearance of potential problems to improve the quality of its customers' ultrasound systems.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether Claims 1-6 stand correctly rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Wood et al. (U.S. Pat. 5,851,186), a patent also assigned to the present assignee.
2. Whether the claim from which Claim 7 depends was properly rejected.

VII. ARGUMENT

A. Rejection of Claims 1-6 as anticipated by Wood et al.

Claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by US Pat. 5,851,186 (Wood et al.) which is commonly assigned with the present application. Claim 1 describes a distributed ultrasound diagnostics network for diagnosing the functionality of an ultrasound system comprising a plurality of diagnostics computers for diagnosing the functionality of an ultrasound system containing ultrasound system functionality diagnostics software which are operated by servicepersons to download ultrasound system functionality diagnostic information from ultrasound systems. A central diagnostics location is provided with which the diagnostics computers periodically communicate to transfer the ultrasound system functionality diagnostic information. The central diagnostics location is a repository for ultrasound system repair, maintenance, or quality improvement diagnostic information obtained by the diagnostic computers from a plurality of ultrasound systems. This invention comprehends a two-level ultrasound diagnostic network. A first level of communication exists between diagnostics computers and ultrasound systems of users, by which the diagnostics computers download diagnostic information from a plurality of ultrasound systems. In an actual implementation these

diagnostics computers would be in the hands of field service personnel, able to reach a widely distributed installed base of ultrasound systems. A second level of communication exists between the diagnostics computers and a central diagnostics location with which the diagnostics computers communicate to periodically transfer the diagnostics information they have acquired from the installed base of ultrasound systems. Such a network allows the diagnostics computers to be extremely mobile, such as laptop diagnostic computers of service personnel, which operate independently to acquire diagnostics information from ultrasound systems but later communicate this information to a central repository where it can be aggregated to be analyzed for the development of improvements such as new solutions or approaches to maintenance or repair, or quality improvement measures which prevent potential problems from arising later.

In the first Office action the Examiner cited the passage in Wood et al. from col. 10, line 10 to col. 11, line 28 as showing the same network. In fact, it is seen that the Wood et al. patent only comprehends a single level of communication. The cited passage first discusses a “remote terminal” which is in communication with an ultrasound system to operate it or download information such as test and error logs. In the latter portion of the passage the terminal is said to be a laptop computer which, when carried to the ultrasound system by a serviceperson, can be connected directly to the ultrasound system’s network connection to perform these functions. Nowhere in the passage is a central repository envisioned with which the remote terminals or laptop computers would communicate. The benefits of aggregating diagnostic information at a central diagnostic location from a plurality of diagnostics computers

are not realized by the Wood et al. arrangement of simply connecting a computer or terminal with an ultrasound system, either remotely or on-site.

The issue was further joined in paragraph 5 of the Final Rejection, where the Examiner focuses in on col. 11, lines 1-4 which, the Examiner states, disclose that the results of validation tests of remotely installed software upgrades are returned to the remotely located installer, verifying the successful installation of the new software. This is indeed what the passage discloses, but this does not support the Examiner's proposition that there is a central repository for ultrasound system repair, maintenance or quality improvement information with which diagnostics computers communicate. When this passage is read in the context of the full paragraph which it concludes, it is seen that the paragraph is a clear reference to remotely installing software upgrades, the subject of the parent application of the Wood et al. patent, US Pat. 5,603,323 which is also of record in this application. After a remote computer or terminal installs software in an ultrasound system, the installing computer executes a diagnostic routine which exercises the newly installed software to validate its performance. At the conclusion of this routine the success of the validation is returned to the installing computer to verify to the installer that the new software was successfully installed. This is a single level of communication between the remote installing computer at, for instance, the factory or a service depot, and the ultrasound system. See the '323 patent at col. 2, line 39 through col. 3, line 5. No second level of communication between diagnostics computers and a central diagnostics location is shown or even hinted at in Wood et al. or its parent '323 patent. Accordingly it is respectfully submitted that Claim 1 and its dependent Claims 2-7 are not anticipated by Wood et al.

B. Objection to Claim 7 as depending from Claim 1

With Claim 1 seen to be patentable over Wood et al., it follows that Claim 7, which depends from Claim 1, is also allowable. Furthermore, Claim 7 lists four uses to which the diagnostic information aggregated from a plurality of ultrasound systems may be put by the central diagnostic location, uses which are not suggested by Wood et al. Compare the operations listed in Claim 7, including determining root causes of errors, statistically analyzing error conditions, utilizing the aggregated diagnostic information to eliminate error conditions from an ultrasound system, and utilizing the aggregated diagnostic information to develop a new ultrasound system, with the functions listed in Wood et al. at col. 11, lines 26-28, which include performing system diagnostics, checking error logs, verifying configurations and software levels, and other system maintenance and repair activities. It is respectfully submitted that Claim 7 is also allowable for these further reasons.

VIII. CONCLUSION

Based on the law and the facts, it is respectfully submitted that none of the appealed claims are anticipated by Wood et al. Accordingly, it is respectfully requested that this Honorable Board reverse the grounds of rejection and objection stated in the Final Rejection.

Respectfully submitted,

REINHOLD G. GRELLMANN ET AL.

By: W Brinton Yorks, Jr.
W. Brinton Yorks, Jr.
Reg. No. 28,923

APPENDIX: THE CLAIMS ON APPEAL

1. (Previously presented) A distributed ultrasound diagnostics network for diagnosing the functionality of an ultrasound system comprising:

a plurality of diagnostics computers for diagnosing the functionality of an ultrasound system containing ultrasound system functionality diagnostics software which are operated by servicepersons to download ultrasound system functionality diagnostic information from ultrasound systems; and

a central diagnostics location with which said diagnostics computers periodically communicate to transfer said ultrasound system functionality diagnostic information,

whereby said central diagnostic location is a repository for ultrasound system repair, maintenance, or quality improvement diagnostic information obtained by said diagnostic computers from a plurality of ultrasound systems.

2. (Original) The distributed ultrasound diagnostics network of Claim 1, wherein said diagnostics computers comprise portable computers.

3. (Original) The distributed ultrasound diagnostics network of Claim 2, wherein said portable computers comprise laptop computers.

4. (Original) The distributed ultrasound diagnostics network of Claim 1, wherein said diagnostics computers download said diagnostic information over a network from locations remote from said ultrasound systems.

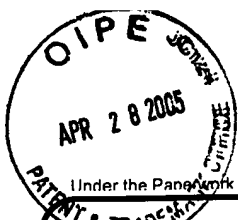
5. (Original) The distributed ultrasound diagnostics network of Claim 4, wherein said diagnostics computers further act to download diagnostic information over a direct connection at the site of said ultrasound systems.

6. (Previously presented) The distributed ultrasound diagnostics network of Claim 5, wherein said diagnostics computers upload said diagnostic information over a network to said central diagnostics location from locations remote from said central diagnostics location.

7. (Original) The distributed ultrasound diagnostics network of Claim 1, wherein said ultrasound system diagnostic information comprises information concerning ultrasound system error conditions; and

wherein said central diagnostics location operates on said ultrasound system diagnostic information by performing at least one of the following operations:

- determining root causes of errors;
- statistically analyzing error conditions;
- utilizing said diagnostic information to eliminate error conditions from an ultrasound system; and
- utilizing said diagnostic information to develop a new ultrasound system.



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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

Complete if Known

Application Number	10/713,600
Filing Date	November 13, 2003
First Named Inventor	Reinhold G. Grellmann
Examiner Name	
Art Unit	2113
Attorney Docket No.	US009221-A

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: 14-1270 Deposit Account Name: Philips Electronics N.A.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Fee (\$)	Small Entity Fee (\$)
50	25
200	100
360	180

Total Claims**Extra Claims****Fee (\$)****Fee Paid (\$)**

- 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims**Extra Claims****Fee (\$)****Fee Paid (\$)**

- 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims**Fee (\$)** **Fee Paid (\$)****3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Appeal Brief

Fees Paid (\$)

500.00

SUBMITTED BY

Signature	<u>W. Brinton Yorks, Jr.</u>	Registration No. (Attorney/Agent)	28,923	Telephone	425-487-7152
Name (Print/Type)	W. Brinton Yorks, Jr.	Date	4/25/05		

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